



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,087	08/20/2008	Young Jin Kim	05-517-B	1136
20306 7590 12/21/2010 MCDONNELL BOEHNNEN HULBERT & BERGHOFF LLP 300 S. WACKER DRIVE 32ND FLOOR CHICAGO, IL 60606			EXAMINER CHOUDHURY, AZIZUL Q	
			ART UNIT 2453	PAPER NUMBER
			MAIL DATE 12/21/2010	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/586,087

Applicant(s)

KIM, YOUNG JIN

Examiner

AZIZUL CHOUDHURY

Art Unit

2453

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Detailed Action

This office action is in response to the correspondence received on October 1, 2010.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 14-18 and 22 are rejected under 35 U.S.C. 101 because based upon consideration of all of the relevant factors with respect to the claim as a whole, claim(s) 14-18 and 22 are held to claim an abstract idea, and is/are therefore rejected as ineligible subject matter under 35 U.S.C. 101. The rationale for this finding is explained below: Claims 14-18 and 22 are directed towards a system however, the claimed system lacks definitive structure. As claimed, the system features no hardware within the body of the claim and as such, the system can be interpreted as being purely abstract and thus, deemed non-statutory.

On the other hand, Claims 1-13 and 19-21 are deemed statutory and are not subject to the 101 rejection. Claims 1-13 and 19-21 are method claims which, as claimed, make inherently essential the existence of hardware devices; in order for successful execution of the method steps (Applicant may refer to *Federal Register*, Volume 75, No. 143, July 27, 2010; p. 43927 with regards to "Factors Weighing Toward Eligibility" and "Factors Weighing Against Eligibility" for further details pertaining to this rationale).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al (US Patent No: 6,219,703) in view of Rath i et al (US Patent No: 6,930,985), hereafter referred to as Nguyen and Rath i, respectively.

1. With regards to claim 3, Nguyen teaches through Rath i, in an online network environment, a method of operation of a network management system (NMS), the method comprising: receiving a trap message from an agent, the agent having management information base (MIB) information associated therewith (*see column 1, lines 48-49, Nguyen*); and in response to receiving the trap message, transmitting to the agent a request to perform a walk operation, wherein the walk operation facilitates automatic update of the MIB information associated with the agent (*Nguyen teaches the processing system issuing a "Get-Next" (Use of the SNMP Get-Next command is a "walk". When Get-Next is used on an MIB, the MIB is read and hence ("walked") to retrieve the agent associated MIB data; see column 4, lines 48-51, Nguyen. This "walk" operation*

results in the construction, compilation and versioning of the MIB (automatic update of MIB); see column 4, lines 27-39, lines 56-61 and lines 65-66, Nguyen.

While Nguyen teaches the use of traps within the agent and the manager using Get-Next to read ("walk") the MIB, Nguyen does not explicitly disclose the MIB reading (walking the MIB) occurring in response to an agent's trap message. In the same field of endeavor, Rath i also teaches a SNMP-based NMS; see column 3, lines 9-21, Rath i. Within Rath i's disclosure, it is taught how a trap is generated and sent by the agent upon a change in the OID; see column 3, lines 46-49, column 4, lines 33-34 and lines 49-51, Rath i. The trap, received by the NMS causes the NMS to read the MIB ("walk" the MIB); see column 5, lines 24-25, Rath i. Having the MIB read ("walked") upon a trap rather than periodically, saves unnecessary status messages being sent. Therefore it would have been obvious to one skilled in the art, during the time of the invention, to have combined the teachings of Nguyen with those of Rath i, to increase available bandwidth; see column 5, lines 24-36, Rath i.

2. With regards to claims 4 and 9, Nguyen teaches through Rath i, the method wherein the agent stores the MIB information (*see at least column 2, lines 57-61, Nguyen*)
3. With regards to claims 5, 10 and 16, Nguyen teaches through Rath i, the method wherein the trap message is a simple network management protocol (SNMP)

trap message and the walk operation is an SNMP walk operation (*Nguyen's design supports SNMP traps; see column 3, lines 56-60, Nguyen. Nguyen also teaches the processing system issuing a "Get-Next" (use of the SNMP Get-Next command is a "walk"); see column 4, lines 27-39, Nguyen.*

4. With regards to claim 6, Nguyen teaches through Rathi, the method further comprising updating the MIB information to be synchronized with a second MIB (*see column 4, lines 30-42 and lines 65-67, Nguyen.*)
5. With regards to claim 7, Nguyen teaches through Rathi, the method further comprising: transmitting at least part of the MIB information to the agent (*see at least column 1, line 61 – column 2, line 14, Nguyen.*)
6. With regards to claim 8, Nguyen teaches through Rathi, in an online network environment, a method of operation of an agent, the method comprising: determining that a change has occurred to management information base (MIB) information associated with the agent (*Nguyen teaches the use of OID; see column 3, lines 50-51, Nguyen. Also see Rathi below*); in response to determining that the change has occurred to the MIB information associated with the agent, transmitting a trap message to a network management system (NMS) (*Nguyen teaches the use of traps; see column 3, lines 56-60, Nguyen. Also see Rathi below*); and receiving a request to perform a walk operation from the NMS,

wherein the walk operation facilitates automatic update of the MIB information associated with the agent (*Use of the SNMP Get-Next command is a "walk"*. *When Get-Next is used on an MIB, the MIB is read and hence ("walked") to retrieve the agent associated MIB data; see column 4, lines 48-51, Nguyen. This "walk" operation results in the construction, compilation and versioning of the MIB (automatic update of MIB); see column 4, lines 27-39, lines 56-61 and lines 65-66, Nguyen.*

While Nguyen teaches the use of traps within the agent and the manager using Get-Next to read ("walk") the MIB, Nguyen does not explicitly disclose the MIB reading (walking the MIB) occurring in response to an agent's trap message. In the same field of endeavor, Rath i also teaches a SNMP-based NMS; see column 3, lines 9-21, Rath i. Within Rath i's disclosure, it is taught how a trap is generated and sent by the agent upon a change in the OID; see column 3, lines 46-49, column 4, lines 33-34 and lines 49-51, Rath i. The trap, received by the NMS causes the NMS to read the MIB ("walk" the MIB); see column 5, lines 24-25, Rath i. Having the MIB read ("walked") upon a trap rather than periodically, saves unnecessary status messages being sent. Therefore it would have been obvious to one skilled in the art, during the time of the invention, to have combined the teachings of Nguyen with those of Rath i, to increase available bandwidth; see column 5, lines 24-36, Rath i.

7. With regards to claim 11, Nguyen teaches through Rath, the method further comprising: the agent receiving at least part of an updated NMS MIB from the NMS (*see at least column 3, lines 8-12, Nguyen*).
8. With regards to claim 12, Nguyen teaches through Rath, the method wherein the updated NMS MIB was updated from the NMS MIB (*see at least column 3, lines 8-12, Nguyen*).
9. With regards to claim 13, Nguyen teaches through Rath, the method wherein determining that the change has occurred determining a change to an object identifier (OID) has occurred (*see column 4, lines 33-34 and lines 49-51, Rath*).
10. With regards to claim 14, Nguyen teaches through Rath, a system comprising: a network management system (NMS) (*see column 1, lines 44-45, Nguyen*); and an NMS management information base (MIB), wherein the NMS is configured to receive a trap message from an agent that has access to an agent MIB, in response to receiving the trap message, conduct a walk operation on the agent MIB, and based on a result of the walk operation, update the NMS MIB (*Nguyen teaches the use of traps; see column 3, lines 56-60, Nguyen. Also see Rath below. Use of the SNMP Get-Next command is a "walk". When Get-Next is used on an MIB, the MIB is read and hence ("walked") to retrieve the agent associated MIB data; see column 4, lines 48-51, Nguyen. This "walk" operation*

results in the construction, compilation and versioning of the MIB (automatic update of MIB); see column 4, lines 27-39, lines 56-61 and lines 65-66, Nguyen.

While Nguyen teaches the use of traps within the agent and the manager using Get-Next to read ("walk") the MIB, Nguyen does not explicitly disclose the MIB reading (walking the MIB) occurring in response to an agent's trap message. In the same field of endeavor, Rath i also teaches a SNMP-based NMS; see column 3, lines 9-21, Rath i. Within Rath i's disclosure, it is taught how a trap is generated and sent by the agent upon a change in the OID; see column 3, lines 46-49, column 4, lines 33-34 and lines 49-51, Rath i. The trap, received by the NMS causes the NMS to read the MIB ("walk" the MIB); see column 5, lines 24-25, Rath i. Having the MIB read ("walked") upon a trap rather than periodically, saves unnecessary status messages being sent. Therefore it would have been obvious to one skilled in the art, during the time of the invention, to have combined the teachings of Nguyen with those of Rath i, to increase available bandwidth; see column 5, lines 24-36, Rath i.

11. With regards to claim 15, Nguyen teaches through Rath i, the system wherein the NSM stores the NMS MIB and the agent stores the agent MIB (*Nguyen teaches the NMS storing its MIB (see column 3, line 62 and column 4, lines 3-4, Nguyen) and the agent storing its MIB (see column 4, lines 17-18, Nguyen).*)

12. With regards to claim 17, Nguyen teaches through Rathi, the system wherein the NMS updating the NMS MIB comprises the NMS updating the NMS MIB to be synchronized with the agent MIB (*see at least column 4, lines 27-39, lines 56-61 and lines 65-66, Nguyen*).
13. With regards to claim 18, Nguyen teaches through Rathi, the system wherein the NMS is further configured to transmit at least part of the updated NMS MIB to the agent (*see column 1, line 61 – column 2, line 14, Nguyen*).
14. With regards to claims 19, 21 and 22, Nguyen teaches through Rathi, the method wherein the MIB information comprises a meta MIB comprising an object table and a trap table, wherein the meta MIB is configured to store an object identifier (OID), and wherein performing the walk operation comprises performing the walk operation on the meta MIB (*see column 3, lines 46-60 and column 4, lines 38-39 and lines 48-51, Nguyen*).
15. With regards to claim 20, Nguyen teaches through Rathi, the method further comprising: the agent conducting a walk operation on the MIB information; and based on results of the walk operation, the agent regenerating the MIB information (*Nguyen teaches the agent supporting its own MIB; see column 1, lines 48-50, Nguyen*).

16. The obviousness motivation applied to independent claims 3, 8 and 14 are applicable to their respective dependent claims.

Response to Arguments

Applicant's arguments with respect to claims 3-22 have been considered but are moot in view of the new ground(s) of rejection. The following are the examiner's response to the applicant's arguments.

Despite applicant's arguments, the 101 rejections continue to stand. The claims feature both method and system claims. The method claims are no longer subject to the 101 rejection because as claimed, the method makes inherently essential the existence of hardware devices; in order for successful execution of the method steps. Applicant may refer to *Federal Register, Volume 75, No. 143, July 27, 2010; p. 43927 with regards to "Factors Weighing Toward Eligibility" and "Factors Weighing Against Eligibility" for further details pertaining to this rationale*. However, such rationale is not applicable to system claims. Claims 14-18 and 22 are directed towards a system however, the claimed system lacks definitive structure. As claimed, the system features no hardware within the body of the claim and as such, the system can be interpreted as being purely abstract and thus, deemed non-statutory.

In lieu of the claim amendment, a new search was conducted and a new, more pertinent rejection has been provided. The action continues to remain non-final simply because the new rejection was applied to unamended claim sets. The action was taken

based on expediting prosecution. The previously presented Nguyen prior art now stands as the primary reference and the newly found Rathi art is now the secondary reference.

Nguyen teaches a NMS system that features agents and MIBs. Nguyen also supports the use of traps; see column 3, lines 56-60, Nguyen. As for the claimed "walk" operation, within SNMP, the use of the SNMP Get-Next command is a "walk". When Get-Next is used on an MIB, the MIB is read and hence ("walked") to retrieve the agent associated MIB data; see column 4, lines 48-51, Nguyen. This "walk" operation results in the construction, compilation and versioning of the MIB (automatic update of MIB); see column 4, lines 27-39, lines 56-61 and lines 65-66, Nguyen. While Nguyen teaches the use of traps within the agent and the manager using Get-Next to read ("walk") the MIB, Nguyen does not explicitly disclose the MIB reading (walking the MIB) occurring in response to an agent's trap message. In the same field of endeavor, Rathi also teaches a SNMP-based NMS; see column 3, lines 9-21, Rathi. Within Rathi's disclosure, it is taught how a trap is generated and sent by the agent upon a change in the OID; see column 3, lines 46-49, column 4, lines 33-34 and lines 49-51, Rathi. The trap, received by the NMS causes the NMS to read the MIB ("walk" the MIB); see column 5, lines 24-25, Rathi.

The examiner wants to emphasize the interpretation of an SNMP "walk" as described above simply because there seems to be confusion as to what a "walk" function truly is. While the term "walk" is not be used literally, applicant should not interpret this lack of literal interpretation to mean the teaching of the concept is not

present within the prior arts. Referring to any SNMP reference clearly explains that the "walk" function consists of reading/traversing data (MIB) using commands such as the "Get-Next" command. This function is a "walk" function.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AZIZUL CHOUDHURY whose telephone number is (571)272-3909. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Krista Zele can be reached on (571) 272-7288. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/586,087
Art Unit: 2453

Page 13

/A. C./
Examiner, Art Unit 2453

/Krista M. Zele/
Supervisory Patent Examiner, Art Unit 2453